Working papers economics - Household consumption in Colombia: a nonlinear cointegrating approach

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Increases in current income generate marginal propensities to consume that are about 25% higher than those associated with income declines, while reductions in interest rates induce long?run responses nearly 188% larger than increases. These patterns are consistent with the presence of liquidity constraints.

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Using nonlinear cointegration techniques, this article examines the short- and long?term determinants of household consumption between 2003 and 2022. As a proxy for consumption, it relies on the monthly retail trade indices excluding fuels and vehicles published by the National Administrative Department of Statistics (DANE in Spanish). The factors accounting for consumption dynamics include current income—measured here through the Economic Tracking Indicator (ISE)—interest rates, consumer credit, remittances, the consumer confidence index, and demographic indicators related to population aging.

Contribution

Despite representing nearly 75% of GDP, household consumption is, somewhat surprisingly, a relatively understudied variable in Colombia. This study contributes to broadening the understanding of household consumption expenditure. It analyzes whether consumption responds differently to positive versus negative changes in current income, and whether similar asymmetries appear in the responses to changes in interest rates and remittances. The article puts forward findings suggesting that such responses are asymmetric—particularly with respect to current income and interest rates—which may be consistent with the presence of liquidity constraints.

Results

The estimates reveal important long?run asymmetries: increases in current income generate marginal propensities to consume that are approximately 25% higher than those associated with income declines. Likewise, reductions in interest rates induce long?run responses nearly 188% larger than those triggered by increases. Remittances and consumer credit also act as long?run drivers of household consumption.

Consumer confidence and the age composition of the population play a significant role in shaping short?run consumption dynamics. First, the sign and statistical significance of the coefficient associated with the consumer confidence index are consistent with the interpretation that higher confidence reflects lower perceived uncertainty regarding current and future interest rates, housing prices, credit availability, growth expectations, and other factors. This type of uncertainty is distinct from that related to income, which gives rise to precautionary savings. We do not find evidence of such behavior, as persistent increases in income lead to long?run consumption responses close to 1, suggesting that consumption does not adjust downward in anticipation of possible future income declines. This is an issue that warrants further study.

Second, the fact that the estimates associated with population aging are negative and statistically significant is not consistent with the life?cycle model, which assumes that consumption should remain smooth over the life cycle in a frictionless capital market. However, if the liquidity constraints highlighted above are taken seriously, this result should not be surprising, especially considering the decline in income at retirement in a country like Colombia, where persistent labor informality limits pension coverage to a small share of the population. This finding underscores the need to anticipate the effects on aggregate demand as population aging progresses.

Fuente: https://www.banrep.gov.co/en/publications-research/working-papers-economics/household-consumption-colombia-nonlinear